

PRELIMINARY INFORMATION ON THE OLIGER/KINGSLEY DISC SYSTEM

The hardware of this disc interface will consist of the main disc interface board (board "A"), the firmware/banking/memory board (board "B"), and optionally the 64K Memory/CPM board (board "C"). All of these boards will be designed to plug into the Oliger 2068 Expansion Board, so this board is of course also required. I have talked to owners of the 3 other commercial 2068 floppy disc interfaces, read the reviews, and firmly believe this system will be superior to all of them. The system should have LOAD/SAVE speed comparable to the Ramex system and easier LOAD */SAVE * commands with no Basic ram area used comparable to the Timex of Portugal interface.

The main disc interface board (board "A") is already developed, debugged, and currently (7/85) is in stock. Initial prices for this board has been set to: Bare pc=\$17.95, Kit of board w/parts=\$54.95, & Assembled and tested=\$64.95. You may order this board now in preparation for the rest of the system, if desired, but the only documentation currently available included at this time with the board is its schematic. Further documentation will be sent to purchasers when available, along with notification of the "B" board's availability. The pc features plated through holes, NO jumpers, and gold plated edge traces both to the expansion board and disc I/O standard. This board will support (hardware wise) up to four single or double sided, single, double or quad density, up to 255 sector by 256 track (if they existed now) 3", 3 1/2", or 5 1/4" drives. This board will actually work (as far as the hardware is concerned) on the TS2068, ZX Spectrum, ZX80, ZX81, TS1000, and TS1500 computers. Software support is only planned for the TS2068 and possibly the ZX Spectrum* if it is eventually sold by Sinclair in the USA, and Ray Kingsley says he may also convert the DOS to work on the ZX81/TS100, later, if there is a demand for this. Support of only the TS2068 can be made with boards "B" & "C". If the Spectrum* is supported in the future a new firmware support board would have to be purchased at that time. The data transfer rate of this board, like all 5 1/4" floppys in double density mode, is 32K bytes per second. Actual program transfer from disc to computer memory, like ALL 5 1/4" disc controllers will be something less than this, the actual rate determined by software efficiency. I can think of no one I'd rather trust to this demanding job than Ray Kingsley!

The firmware/bank logic/memory board (board "B") is presently prototyped and debugged. Initial prototypes have been sent to Ray for work on the DOS, and an initial order for this board has been placed from my pc manufacturer. This board used in combination with board "A" will form a disc drive system that acts a lot like the Sinclair Interface One w/microdrives but using disc drives instead of the microdrives for increased data transfer & file locating speed. Discs written with this basic system will be CP/M compatible. Files will be readable from at least one popular CP/M format. This board will allow use of all disc support keywords that presently lead to error messages on the unexpanded 2068, along with full support of SAVE *, LOAD *, VERIFY *, and further uses of these commands with CODE, DATA, & SCREENs, and handle these commands in a way completely transparent to the user via hardware interception of the Basic's RST 08h error routine. The board will contain 8K of eeprom mapped 0-8K and 8K of static 6264 ram mapped 8-16K in a new bank of memory (similar to the bank invoked when the "Shadow" rom of the interface One is paged in). It will also contain the necessary support logic to switch this additional memory in and out of the system at the correct times. Because this board will have its own 8K of ram to be used as a data buffer, machine code variables area, and catalog map area, NONE of the ram normally available to Basic should be needed for use by the system. It would even be very possible to slightly extend the Basic in some ways in addition to the disc system, if enough room is left in the firmware eeprom to do this and Ray Kingsley decides he would like to. Something like this would be completely up to Ray, so if you have specific suggestions for something REALLY desirable you should address your letters his way. It is also hoped, if Ray would like to and feels there will be a demand for it, that either another firmware support eeprom can be written to support this board used with a 2068 that emulates the ZX Spectrum via using a Spectrum rom, romswitch, or Spectrum emulator cartridge or possibly (if it IS possible!) for this board's firmware to check and see which system it presently has in control (2068 or Spectrum) and treat things accordingly. I have personally had many requests for this type of thing and NONE of the other disc systems that I know of for the 2068 can do it, to my knowledge! Use of the system with this board should NOT interfere with the use of cartridges (regular or Oliger User Cartridges) or the Exrom bank in any way. In addition to all of this, Ray tells me that his DOS will support SAVE * and LOAD * to/from any bank of memory on the 2068!

The 64K memory/CPM disc support board (board "C") will be made mainly to support the CPM operating system, although this board may also be used to expand memory on the TS2068. It will contain 64K of dynamic memory and be mapped in a totally new bank of memory enabled in 8 chunks via a chosen port. The board will contain some bank select/chunk select circuitry and will be able to be used at the same time as board "B" via use of a Daisy Chain Output from board "B". This board is farthest away from actual production and hence its specs. are the most likely to change. I will try to tailor this board around the needs of this system used for CPM as determined by Ray. This board will be an optional device available sometime after the basic system consisting of boards "A" & "B" is available. This board will only be needed if you plan to run CPM in the future or want to expand the ram on you 2068 for your own reasons.

Prices on boards "B" & "C", along with package prices, are still to be determined, but by nature of the fact that they are designed for use in the Oliger 2068 Expansion Board, they are bound to be more cost effective than competitive systems. Specific comments/suggestions concerning HARDWARE on this system should be addressed to: The John Oliger Co. 11601 Whidbey Dr. Cumberland, IN 46229. Specific comments/suggestions concerning SOFTWARE/FIRMWARE on this system should be addressed to Ray Kingsley C/O Sinware Software P.O. Box 8032 Santa Fe, NM 87504.

If you would like to be put on this system's "INFORM WHEN READY" list, drop me a postcard.

Thank you, John L. Oliger